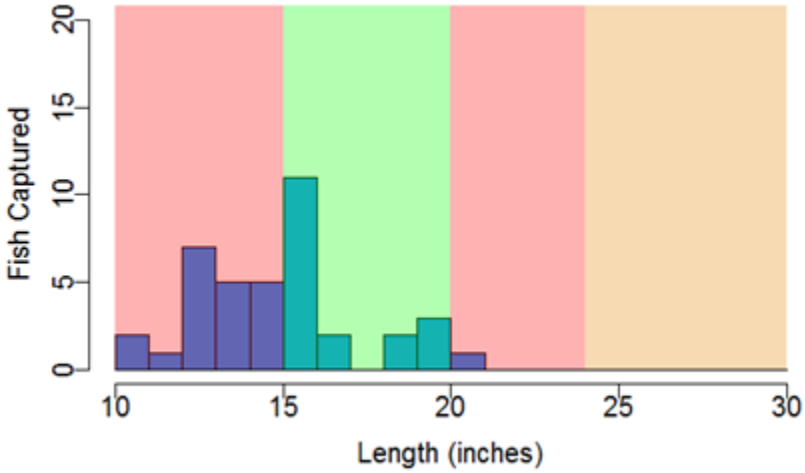
Spring Fisheries Survey Summary
Windfall Lake, Sawyer County, 2017

The Hayward DNR Fisheries Management Team conducted a fyke netting survey on Windfall from April 12-13, 2017 to assess the adult walleye, northern pike, and black crappie populations in the lake. Five nets were set overnight for two total nights which resulted in 10 total net-nights of effort during the walleye spawn. An electrofishing survey conducted on June 1, 2017 documented the status of bluegill, largemouth bass, and non-game species. The entire shoreline of the lake (1.5 miles) was shocked. Quality, preferred, and memorable sizes referenced in this summary are based on standard proportions of world record lengths developed for each species by the American Fisheries Society.

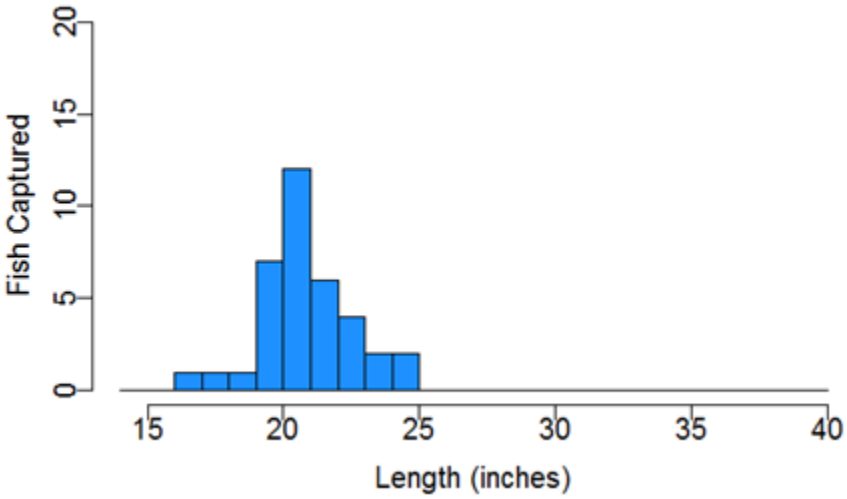
Walleye (Adult)

Captured 4 per net-night ≥ 10 inches	
Quality Size ≥ 15"	49%
Preferred Size ≥ 20"	3%



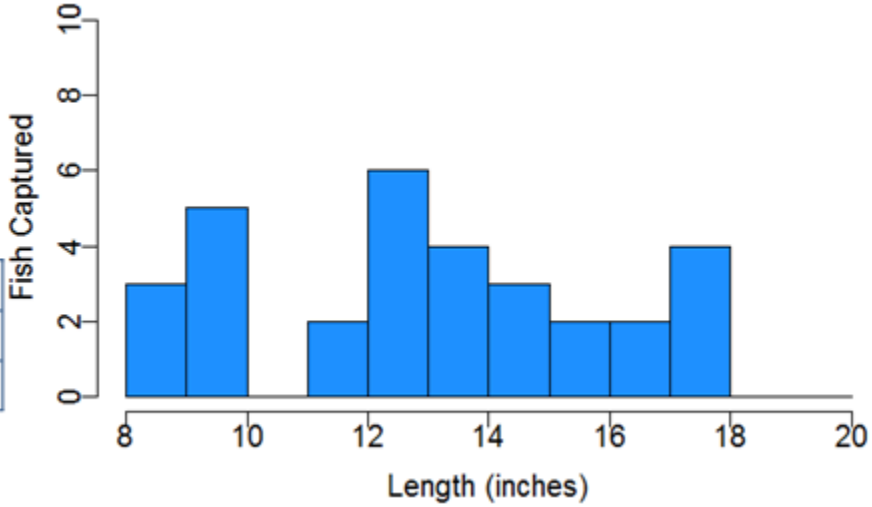
Northern Pike

Captured 4 per net-night ≥ 14 inches	
Quality Size ≥ 21"	39%
Preferred Size ≥ 28"	0%



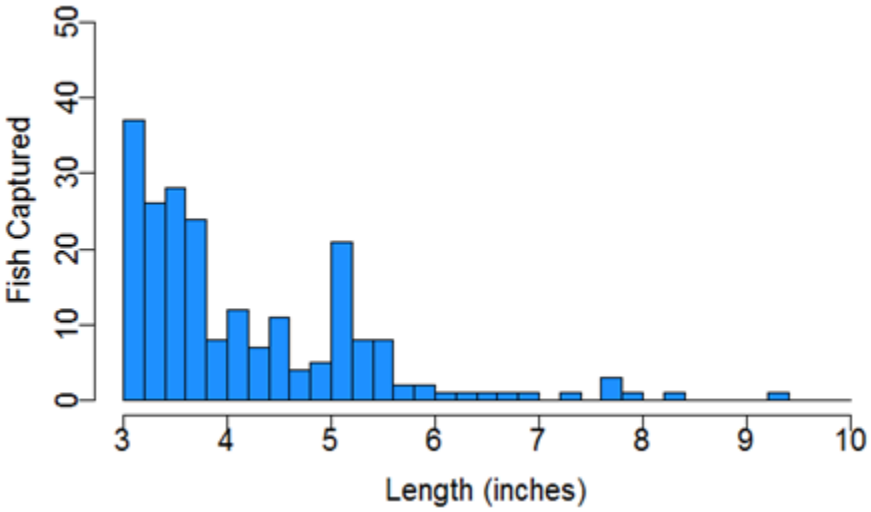
Largemouth bass

Captured 21 per mile ≥ 8 inches	
Quality Size ≥ 12”	68%
Preferred Size ≥ 15”	26%



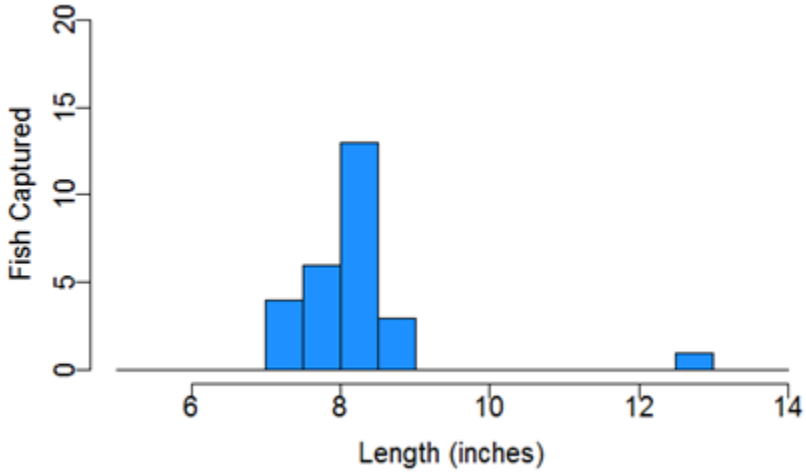
Bluegill

Captured 143 per mile ≥ 3 inches	
Quality Size ≥ 6”	6%
Preferred Size ≥ 8”	1%



Black Crappie

Captured 3 per net-night ≥ 5 inches	
Quality Size ≥ 8”	63%
Preferred Size ≥ 10”	4%



Summary of Results

Windfall has the unique reputation of being a very small lake with historically strong walleye natural recruitment. The fish community has always been largely shaped by the presence of a

dense walleye population. This survey documented that the walleye population is changing, and the rest of the fish community is changing along with it.

The abundance of adult walleye in Windfall Lake appears to have declined significantly over the last 5 years. The previous comparable fishery survey (same timing and capture gears) was conducted in 2011 and found an adult walleye catch rate of 60 per net night. In 2017, that rate had dropped to 4 per net night. A change in the size structure has accompanied the change in relative abundance. In 2011 a mere 8% of adult walleye were over 15 inches long (the minimum length limit). In 2017 nearly half of the adult walleye captured were over 15 inches long. Increase in growth rate and average size of a walleye population is common when abundance drops as there is more food available for individual fish. The drop in adult walleye density in Windfall Lake appears to be related to limited recruitment of new fish. Fall surveys targeting juvenile walleye in Windfall Lake over the past four years have documented poor walleye recruitment. This trend was present in many other lakes in northern Wisconsin over the last two decades, but Windfall Lake had been immune to that problem until recently.

Northern pike were captured at a low to moderate rate with average size. Windfall Lake is known to produce some large pike (>30 inches), but none were captured as a part of this survey.

Panfish in Windfall Lake have changed drastically and it is likely related to the changes in the walleye population. Bluegill were historically less abundant than they are presently, and under those conditions had excellent size. In the 2011 survey of Windfall Lake. 17% of bluegill captured were over 8 inches long. In 2017, only 1% of bluegill were over 8 inches long. Crappie similarly demonstrate poor size currently, with few fish over 10 inches in length. Size tends to suffer when panfish become more abundant. As such, maintaining a dense predator population is one of the most effective strategies for maintaining good panfish size structure. Restoration of a dense walleye population will be key to restoring panfish size.

Large bluegill like this one used to be more common in Windfall Lake when there was a dense population of walleye. Photo by Evan Sniadajewski.

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Special thanks to volunteers
Reviewed and Approved by Jeff Kampa – Area Fisheries Supervisor